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TECH CENTER 1600/2900

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<120> STRUCTURE-BASED SCREENING TECHNIQUES FOR DRUG DISCOVERY

<130> A-68126-1/RFT/RMS/RMK

<140> 09/502,984

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<160> 36

<170> PatentIn Ver. 2.1

<210> 1

<211> 225

<212> PRT

<213> Homo sapiens

<400> 1

Ala Pro Pro Pro Asn Leu Pro Asp Pro Pro Lys Phe Glu Ser Lys Ala Ala
1 5 10 15

Leu Leu Ala Ala Arg Gly Pro Glu Glu Leu Leu Cys Phe Thr Glu Arg
20 25 30

Leu Glu Asp Leu Val Cys Phe Trp Glu Glu Ala Ala Ser Ala Gly Val
35 40 45

Gly Pro Gly Asn Tyr Ser Phe Ser Tyr Gln Leu Glu Asp Glu Pro Trp
50 55 60

Lys Leu Cys Arg Leu His Gln Ala Pro Thr Ala Arg Gly Ala Val Arg
65 70 75 80

Phe Trp Cys Ser Leu Pro Thr Ala Asp Thr Ser Ser Phe Val Pro Leu
85 90 95

Glu Leu Arg Val Thr Ala Ala Ser Gly Ala Pro Arg Tyr His Arg Val
100 105 110

Ile His Ile Asn Glu Val Val Leu Leu Asp Ala Pro Val Gly Leu Val
115 120 125

Ala Arg Leu Ala Asp Glu Ser Gly His Val Val Leu Arg Trp Leu Pro
130 135 140

Pro Pro Glu Thr Pro Met Thr Ser His Ile Arg Tyr Glu Val Asp Val
145 150 155 160

Ser Ala Gly Asn Gly Ala Gly Ser Val Gln Arg Val Glu Ile Leu Glu
165 170 175

Gly Arg Thr Glu Cys Val Leu Ser Asn Leu Arg Gly Arg Thr Arg Tyr
180 185 190

Thr Phe Ala Val Arg Ala Arg Met Ala Glu Pro Ser Phe Gly Gly Phe
195 200 205

Trp Ser Ala Trp Ser Glu Pro Val Ser Leu Leu Thr Pro Ser Asp Leu
210 215 220

Asp
225

<210> 2
<211> 211
<212> PRT
<213> Homo sapiens

<400> 2
Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 3

<211> 212

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 3

Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Phe Ser Phe Ser Phe
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Ile Arg Ile Phe Trp Cys Ser Leu Pro Thr Ala

65	70	75	80
Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser			
85	90	95	
Gly Ala Pro Arg Phe His Arg Val Ile His Ile Asn Glu Val Val Leu			
100	105	110	
Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly			
115	120	125	
His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser			
130	135	140	
His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser			
145	150	155	160
Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser			
165	170	175	
Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met			
180	185	190	
Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val			
195	200	205	
Ser Leu Leu Thr			
210			

<210> 4
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 4
Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Phe Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Phe Ser Phe Ser Phe
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Ile Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Leu Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Phe His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 5
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 5
Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu	Ala	Ala	Ser	Ala	Gly	Val	Gly	Pro	Gly	Asn	Tyr	Ser	Phe	Ser	Tyr
35															45
Gln	Leu	Glu	Asp	Glu	Pro	Trp	Lys	Leu	Cys	Arg	Leu	His	Gln	Ala	Pro
50															60
Thr	Ala	Arg	Gly	Ala	Val	Arg	Phe	Trp	Cys	Ser	Leu	Pro	Thr	Ala	Asp
65															80
Thr	Ser	Ser	Phe	Val	Pro	Leu	Glu	Leu	Arg	Val	Thr	Ala	Ala	Ser	Gly
85															95
Ala	Pro	Arg	Tyr	His	Arg	Val	Ile	His	Ile	Asn	Glu	Val	Val	Leu	Leu
100															110
Asp	Ala	Pro	Val	Gly	Leu	Val	Ala	Arg	Leu	Ala	Asp	Glu	Ser	Gly	His
115															125
Val	Val	Ile	Arg	Trp	Leu	Pro	Pro	Pro	Glu	Thr	Pro	Met	Thr	Ser	His
130															140
Ile	Arg	Phe	Glu	Leu	Asp	Ile	Ser	Ala	Gly	Asn	Gly	Ala	Gly	Ser	Val
145															160
Gln	Arg	Val	Glu	Leu	Leu	Glu	Gly	Arg	Thr	Glu	Cys	Val	Leu	Ser	Asn
165															175
Leu	Arg	Gly	Arg	Thr	Arg	Ile	Thr	Ile	Ala	Val	Arg	Ala	Arg	Met	Ala
180															190
Glu	Pro	Ser	Phe	Gly	Gly	Phe	Trp	Ser	Ala	Trp	Ser	Glu	Pro	Val	Ser
195															205
Leu	Leu	Thr													
210															

<210> 6
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 6
Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Arg Gly Pro Glu Glu

1

5

10

15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Phe Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Phe Ser Phe Ser Phe
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Ile Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Leu Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Phe His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Ile Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Phe Glu Leu Asp Ile Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Leu Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Ile Thr Ile Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 7
<211> 211
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 7

Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Phe Ser Phe Ser Phe
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Ile Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Phe His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 8

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 8

Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Phe Ser Ile Ser Phe
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Ile His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Tyr Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Phe Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Phe His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr

210

<210> 9
<211> 211
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 9
Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Phe Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Phe Ser Phe Ser Phe
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Ile Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Leu Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser

195

200

205

Leu Leu Thr
210

<210> 10
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 10
Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Trp Glu Ile Asp Ile Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Phe Thr Val Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Phe Leu Thr
210

<210> 11
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 11
Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Phe Glu Ile Asp Ile Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Val Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Phe Leu Thr
210

<210> 12
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 12
Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His

130

135

140

Ile Arg Trp Glu Leu Asp Ile Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Phe Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Ile Leu Thr
210

<210> 13

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 13

Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Phe Ser Phe Ser Phe
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Ile Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Leu Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Phe His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 14

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 14

Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Phe Ser Phe Ser Phe
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Ile Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Leu Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Phe His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 15

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 15

Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Phe Ser Phe Ser Phe
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Ile Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp

65

70

75

80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Leu Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Phe His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 16
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 16
Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Ile Val Val Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Ile Val Ile Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Phe Glu Ile Asp Ile Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Ile Thr Ile Ala Ile Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Ile Leu Thr
210

<210> 17
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 17
Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Ile Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Ile Val Ile Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Phe Glu Ile Asp Ile Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Ile Thr Leu Ala Ile Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 18
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 18
Lys Phe Glu Ser Lys Ala Ala Phe Leu Ala Ala Arg Gly Pro Glu Glu

1

5

10

15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Trp Phe Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 19
<211> 211
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 19

Lys Phe Glu Ser Lys Leu Ala Leu Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Leu Thr Glu Arg Leu Glu Asp Leu Ile Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Phe Trp Ser Ala Tyr Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 20

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 20

Lys Phe Glu Ser Lys Ala Ala Phe Leu Trp Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Trp Phe Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr

210

<210> 21
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 21
Lys Leu Glu Ser Lys Ala Ala Tyr Leu Val Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Ile Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Trp Ile Ser Ala Trp Ser Glu Pro Val Ser

195

200

205

Leu Leu Thr
210

<210> 22
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 22
Lys Trp Glu Ser Lys Leu Ala Ile Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Leu Thr Glu Arg Leu Glu Asp Leu Leu Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Phe Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Ile Tyr Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 23
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 23
Lys Leu Glu Ser Lys Ala Ala Trp Leu Tyr Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Ile Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Trp Ile Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 24
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 24
Lys Tyr Glu Ser Lys Leu Ala Leu Tyr Trp Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Tyr Thr Glu Arg Leu Glu Asp Leu Ile Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Trp Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His

130

135

140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Trp Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 25

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 25

Lys Ala Glu Ser Lys Tyr Ala Leu Tyr Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Tyr Thr Glu Arg Leu Glu Asp Leu Ile Cys Tyr Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Tyr Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Trp Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 26

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 26

Lys Tyr Glu Ser Lys Leu Ala Ile Tyr Trp Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Tyr Thr Glu Arg Leu Glu Asp Leu Ile Cys Tyr Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Trp
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Trp Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 27

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 27

Lys Lys Glu Ser Lys Met Ala Met Leu Ala Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Glu Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp

65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Met Glu Ser Ala Tyr Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 28
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 28
Lys Phe Glu Ser Lys Ser Ala Lys Leu Trp Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Gln Cys Phe Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu Leu
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Trp Glu Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 29
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SYNTHETIC

<400> 29
Lys Gln Glu Ser Lys Arg Ala Leu Asn Asp Ala Arg Gly Pro Glu Glu
1 5 10 15

Leu Leu Cys Arg Thr Glu Arg Leu Glu Asp Leu Glu Cys Tyr Trp Glu
20 25 30

Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser Tyr
35 40 45

Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala Pro
50 55 60

Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala Asp
65 70 75 80

Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser Gly
85 90 95

Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Glu Met
100 105 110

Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly His
115 120 125

Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser His
130 135 140

Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser Val
145 150 155 160

Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser Asn
165 170 175

Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met Ala
180 185 190

Glu Pro Ser Phe Gly Gly Asn Trp Ser Ala Trp Ser Glu Pro Val Ser
195 200 205

Leu Leu Thr
210

<210> 30
<211> 5
<212> PRT
<213> Unknown Organism

<220>
<221> UNSURE
<222> (3)
<223> Xaa at position 3 can be any amino acid

<220>

<223> Description of Unknown Organism: cytokine
receptor motif found in many species

<400> 30

Trp Ser Xaa Trp Ser

1 5

<210> 31

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 31

Arg Met Glu Lys Leu Glu Gln Lys Val Lys Glu Leu Leu Arg Lys Asn
1 5 10 15

Glu Arg Leu Glu Glu Glu Val Glu Arg Leu Lys Gln Leu Val Gly Glu
20 25 30

Arg

<210> 32

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 32

Ala Ala Leu Glu Ser Glu Val Ser Ala Leu Glu Ser Glu Val Ala Ser
1 5 10 15

Leu Glu Ser Glu Val Ala Ala Leu

20

<210> 33

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 33

Leu Ala Ala Val Lys Ser Lys Leu Ser Ala Val Lys Ser Lys Leu Ala

1

5

10

15

Ser Val Lys Ser Lys Leu Ala Ala

20

<210> 34

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 34

Gly Ser Gly Gly Ser

1

5

<210> 35

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 35

Gly Gly Gly Gly Ser

1

5

<210> 36

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 36

Gly Gly Gly Ser

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 33

Leu Ala Ala Val Lys Ser Lys Leu Ser Ala Val Lys Ser Lys Leu Ala
1 5 10 15

Ser Val Lys Ser Lys Leu Ala Ala
20

<210> 34

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 34

Gly Ser Gly Gly Ser
1 5

<210> 35

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 35

Gly Gly Gly Gly Ser
1 5

<210> 36

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SYNTHETIC

<400> 36

Gly Gly Gly Ser
1